

A sunburst graphic with numerous thin, light gray lines radiating from a central point behind the text.

# Healthy Moms Podcast

BY **Wellness Mama**<sup>®</sup>  
simple answers for healthier families

Episode 106: Why to Stop Doing Kegels & Squat  
Instead with Katy Bowman

Child: Welcome to my Mommy's podcast.

Katie: Hello, and welcome to "The Healthy Moms Podcast." I'm Katie from [wellnessmama.com](http://wellnessmama.com). And I'm here today with, I think, the most requested podcast guest ever. Katy Bowman is a biomechanist by training and a problem-solver at heart. She has an award-winning blog and podcast called "Katy Says," and she reaches hundreds of thousands of people each month. Many people have taken her live classes, her online classes, and she's the author of eight books. Those will all be in the show notes. I recommend every single one of them but including "Move Your DNA" and "Movement Matters." And I've used her information personally when I had breech babies, when I had sciatica during pregnancy. She has a ton of amazing information. I would highly encourage you to check her out. But I can't wait to jump in right now. So, Katy, welcome and thanks for being here.

Katy: Thanks, Katie. We have the two Katie's going on. This is gonna be fun.

Katie: It is gonna be fun. So to start off, I wanted you to define a few of the terms that you use often so that we have a framework for this interview. So you use the term "nutritious movement" quite a bit, and your book is called "Move Your DNA." So, what do you mean by nutritious movement?

Katy: Well, nutritious movement, it is kind of a simple way of summing up a very large idea, which is, I would say maybe most listeners have this understanding of how nuanced nutrition is that you don't just need to eat right, like don't starve is not the only nutritional guideline. So it's not only adequate calories, it's that you're getting a range of macronutrients, right? That you've got fats and proteins and carbohydrates, but that's not even really sufficient if you only have those guidelines, that there's also vitamins and minerals, and that there's dosages or percentages of your total diet that needs to come from or contain all of these various components. And so that comes easy to us because we've all kind of received this baseline information. Like, this idea of what nutrition is took 500 years. You know, it's about 500 years of data collection. But I learned a lot of it in elementary school, right? I remember learning the food pyramid and like here's what a protein is in a very age-appropriate way. But these ideas were introduced very early on because nutrition is very impactful to the physical experience that you're having.

Movement, on the other hand, we're kind of lagging behind, literally, in the movement component of recognizing that movement in the same way that you need to eat, but not only that. It needs to be widely varied, and that there are specific amounts of different types of motions that you need. We just say kind of like move more. We're still not recognizing the profound impact that how much you move and how you move and maybe the frequency in the distribution of that movement is tremendously impacting the physical experience that you're having. So I talk about, in "Move your DNA", that movement is really affecting your like food on the cellular level. And so if we can think about, if we can parlay that 500 years' worth of understanding about how inputs work, and that there are essential inputs for a human body that we can...to kinda save ourselves some time with movement to help us get this kind of what would be the equivalent to a whole food diet but like a whole food movement diet. What's a nutritious, varied movement diet that not only has the abundance that we need, like the movement, total minutes of movement that we need but also contains like all the nuance variability, making sure that all of our parts are moving well. And that's essentially what that nutritious movement is standing for. It's like you...it's the same as nutrition. It's the same thing, so you can save yourself time and get moving well.

Katie: Yeah. And I love that you're really pioneering the research about this and writing so much about this because I think you're right. We all know that we're more sedentary now than we ever have been, but I think you're really breaking down how that's actually affecting us on a cellular level, which is awesome. And I want to talk about one of your favorite things, at least I'm guessing based on your record, one of your favorite things, which is squatting, because you have a piece called "You Don't Know Squat" and another one called "You Still Don't Know Squat," and you have some great information in there. But basically, you say everyone should be squatting. Kids do it perfectly. I'm watching my toddler learn to walk, and she can squat perfectly without trying. It's the walking that's hard for her. So talk about squatting and why it's such a base mechanic that we need to relearn if we forgotten how.

Katy: Well, it's kind of one of those...I would consider a squat to be like a macronutrient category, right? It's a movement that human bodies have been doing really kind of up until now, right? Squats are how you go to bathroom. They're how you take rest. And in our particular culture, we've got chairs and we've got toilets. We've kind of phased out that movement, but we still have the anatomy that requires that movement to stay fully strong, fully supple, right? So kids can do it very well because they haven't adapted to not squatting yet. The environment that we live in is a non-squat environment so we have become non-squatters. Some may go try to do it. It's like, "Uh, my body doesn't do that." Kids have not adapted to being non-squatters yet. They came as squatters as we did. And as long as you don't interfere with that behavior by, you know, not allowing them to squat or maybe putting so much furniture out where they would take rest in a different way, they're gonna maintain that ability and mobility in that part.

So squatting, that's like, if you think of squatting as a nutrient, when you don't have that nutrient, there are symptoms that arise. I think the squatting stuff really was in response to pelvic floor issues, low back issues, hip and knee issues. And everyone's like, "All these parts are hurting me. I'm very young. What's the issue?" And I was like, "Well, there's this movement that the human body has done really ultimately throughout its history just until right now that if it was done, and not just 1 squat or 10 but, you know, a lot...like this whole category of squatting varied throughout the day, peppered through your life, if you will. Had you been doing that, then your knee mobility and your hip mobility and your low back mobility and your pelvic resting position and then also how those mobilities, when you have them, when you go to walk, when you're not squatting, how those mobilities then change the muscles that you're using when you walk and you stand, how do we have this, then the mechanical contributors to all of those things that you're talking about, the knee pain or the back pain or the SI joint pain or the pubic symphysis pain or multitude of pelvic stuff, like, that it wouldn't have expressed itself so well."

So then just like nutritional therapy, right? If you go to nutritionists, they're like, "Oh, I see you've got symptoms of scurvy. Here's some vitamin C, initially, yes, and then here are some diets that contain vitamin C." And you kind of slowly start working to fill that void of input, and then as you fill in the vitamin C, you eventually choose foods that are more vitamin-C-rich and replace maybe foods that keep you from absorbing vitamin C or whatever, nutrition is pretty nuance, that you begin to see a relief of symptoms. So squatting was like that for me. You don't know squat was like, "Okay. Maybe you've never squatted before like most of us so here is kind of a little tutorial to see what parts of you..." Like squatting as easy as it seems, as easy as it seems when kids are doing it. It requires the mobility, the full mobility of a lot of different parts, right? It's your ankle joint, the mobility of your foot muscles and your calves and your hamstrings and your quads and your hip flexors, all of those have to change shape when you come down into a squat. And the less able they are to change shape, the more something else, usually, your back has to change shape and you just tumble

backwards, so people like, "I can't squat." Or, maybe you have the mobility to get there but then you don't have the strength in your legs to hold yourself in that position because that's, you know, you're a heavy full-grown person, and to lower your mass to and away from the ground requires quite a bit of strength, and so people would say, "I'm down in a squat, but when I stand up, I feel a lot of downward pressure," you know. Maybe that's exacerbating a pelvic symptom or a diastasis recti. It's like, "Yes, okay, so now, we know that we have many parts, joints and muscles and connective tissue and motor habit that all need to be trained just to do this one simple thing."

And so we start to, first, supplement with some corrective exercises, right? We're using them like vitamins, like stretch your calves here a little bit, and I'm gonna have you stretch your hamstrings here a little bit. And you're just trying to start moving these joints or hinges that haven't moved very much. And then you're gonna come down into a squat a little bit, but you're gonna put something underneath here and hold onto here because we're gonna try to reduce the weight that you're putting on this squat, so it's bolstered a little bit so that it's like a more gentle way to slowly start recouping vitamins squat, if you will, and then slowly as you do this more and more frequently and then...that's the supplement version. But then it's like, "Okay. Well, instead of just sitting in a chair every day, why don't you take some of your rest in a squat or a bolstered squat?" And now, that's the equivalent to choosing a different movement diet, like choosing to partake of movements that have more nutritional benefits to you that are moving more of those cells in a cellular level.

And then, low and behold, as you do more of these mobility exercises and add more of these different motions into your life, the symptoms that you are experiencing in the absence of vitamins squat start to subside. So not all humans move exactly in the same way, but there are these fundamental categories of movements that all humans have likely done throughout eon or millennia. So I'm trying to help people kind of get these main categories that they might have been missing. Maybe they can't walk long distances because of like a foot or a knee or back issue, or they can't squat, or they can't hold their weight on their arms, trying to fill in these gaps in their movement diets so that the symptoms that they're experiencing, whether, like I said, like pelvic issues or low back or knee or shoulder or wrist, that we can see those more of symptoms of a lack of particular types of movement. So I love the squat. I love the squat because in graduate school, that's what I...I studied a female pelvic floor disorder. And so for me, that was really standing out as a huge difference between how we move, you know, Western and North Americans, compared to other people in the world that don't have that same...who squat way more often. I was like, "Oh, this could be really helpful." And it turns out that it has been for a lot of people, reintroducing the squat in a kind of gentle step-by-step format.

Katie: Yeah. I love that. I love that you call it vitamin squad. And I know there are trainers...most recently, I was reading some work by a guy named Jersey in California who is, I believe, in his 60s and still has, like, amazing range of movement. He's all about, like, people being able to keep their full squat as well and why that's so important. And I'm curious, too. One question I got a lot from the audience is about people who do have to sit for a job or who are like more confined. And right now, I'm recording eight podcast interviews in a day so I'm standing the entire time hooked up to the headphone. But I have, like, your half arch thing. I'm stretching my calves, and usually, I'll ask the question, put it on mute, and like go down into as squat as well as I can on a desk and even sometimes, like, lay on the floor, just different things to move around. But how can people, especially in an office setting, work that in on a daily basis.

Katy: Well, I wrote a whole book about that because I think it was kind of unfair. I wrote "Move Your DNA," which is like, "Hey, look at all the movements you need to be getting and then..." You know, I imagine that most people are in a sort of like 9 to 5 setting, doesn't mean that you're in office, but you're like productive in

a very static way. So I was like, "Okay. Here's actually how you can be stationary, which means, like, I'm stretching my calves right now, too, as we're talking." So I am stationary, but I'm not sedentary. Meaning, I'm at a standing desk right now. I'm stretching my calves. I'll be stretching my arms and my shoulders. I'll have some phone calls that I need to take later on, business calls, and I will save them all up, and I will go out and walk for an hour to be able to take them.

So acknowledging that most people have this limitation that they have to go to work, the easiest thing is to focus on moving outside of the least malleable areas of your life. So, are you moving in the time before you go to work, which can include getting up 15 minutes earlier simply to do a little bit of, you know, corrective exercise or to take a small walk? Do you walk to work or if you can't walk all the way there or if you're taking your kids to school, can you walk them to school? And if those two things are too challenging and that the distance is so great, could you drive part way and then park in kind of a safe area where then you can then walk the kids the rest of the way, or you yourself walk the rest of the way into your office or wherever you're going for work? Is there a way to add more movement into your desk time? I do recommend that people create a dynamic workspace. So most of us have a pretty traditional office setup, right, where that's just a chair, one chair that you sit the one way in over and over and over again, and then you've got your desk set up.

But one thing you could do if you're listening to this would just be to adjust the way that you're sitting. So even if you're just totally, you feel totally trapped in like, not only I'm not allowed to have a standing work desk, I can't get an ergonomic chair or whatever. It's like, "Well, just sit differently in your own chair, scoot to the front. Stop leaning against the back of it. Tip your pelvis forward so that you're moving your hamstrings a little bit more, moving your hip flexors a little bit differently, right?" So you're moving differently while you are just still sitting in that chair.

Usually, you're on the phone a little bit, you don't have to do all of the tasks that you do probably in your chair. Can you stand up everytime you're taking a phone call? Suggest walking meetings for your office. The more non-traditional all your office, probably the better they'll embrace a lot of these ideas. But if you're going to a meeting, can you stand at meetings or conferences? Going to a lot of meetings and conferences, being the only person who is standing or sitting on the floor kind of makes you stand out, which a lot of people don't feel comfortable doing. So if you are in administration, right, and any HR department should, at this point, be well-versed in the idea that sitting long-term in a chair is not good for any employee, and that strategies to get them out of it that are inexpensive and simple should be in full effect by now. Even simple things like if you have a meeting, putting a piece of paper on the back wall saying standing area or stretching area grants everyone in the office permission to get out of the chair without seeming like they're outside of status quo. Those are just some solutions.

And then one thing would be, if you are using a standing desk, which I'm using, to recognize that the way that you're standing is important. So this idea of alignment, like, of adjusting your body parts to get more parts of you working. So, like if you're standing in front of your desk, but your hips are all the way out in front of you and are resting on the table in front of you, then yes, you're standing. But you could be using more butt muscle and more hamstring muscle and more calves muscles to hold you as opposed to outsourcing all that stability to your desk.

So I definitely have kind of a basic alignment checklist for how to know where your body is in space when you are choosing to be more dynamic. So it's mostly that, and then just, you know, when you do take movement

breaks, how many minutes do you step away from your work, if not with your body, certainly with your mind in that you're on Facebook maybe during work time or kinda what I call the social media loop, like you're kind of pacing a loop on your computer. If you notice that you're doing that and you're already not being productive at work, use that time to stand up, reach your arms up overhead, or just simply go to a doorframe and reach up to the top of the doorframe because the shoulders get moved hardly at all throughout our entire lives but certainly throughout the day, and if you're on the computer, that your arms do need to get overhead. Like, that's a big motion. You know, you don't need to do a monkey bar gymnastics routine. It could certainly just start with reaching your arms over your head and doing a little stretch, you know, reaching up and out to the side, paint a little rainbow in the air, and now, you're moving more.

Katie: Yeah. I love that. You make it very doable. You kind of give baby steps. I will say, I think that your work is having an impact, and there is a raising awareness about this. Even health conferences that I've gone to over the last few years, it was like, the first year, there was just like the Dave Aspreys and the Abel Jameses of the world standing in the back with the orange sunglasses while everybody else sat. And now, there's a lot more of them. Then you even have like Ben Greenfield doing, like, squats back there and all these stretches. So I think the information is spreading, and it's largely in part to what you do. And another thing that you have a controversial opinion on is Kegels. So obviously, these are usually recommended. My listeners are largely moms. So these are recommended after having a baby and at various times involved in pregnancy, and you have a great perspective on this. So, where do you stand on this?

Katy: Well, I squat on those instead of stand on those. I'm just kidding. I would say that I don't have a problem with Kegels. It's just that they come from a very narrow perspective which is, I mean, obviously, your pelvic floor needs to be functional in that it's strong enough to support the weight of your organs and anything else that's going on in your abdominal contents like pregnancy. Not only when you're standing still but when you are moving, right? So if that's walking, running, changing positions, when you're having pelvic issues, what you are seeing is that that system isn't strong enough to support the function of that system. And so, well, people will say, "Well, I only pee like when I laugh or when I run." And I would say, "Yes, when you're having an issue is when you increase the load." So maybe you're strong enough to support yourself when you're static, but you're not strong enough to support yourself when you're dynamic.

And so the Kegel, what I call, like, the great Kegel debate was just like this idea that we know that this needs to be stronger, you know, that your whole pelvic, that your whole body needs to be stronger because the pelvis doesn't work in a vacuum. But if we're just talking about the pelvic floor, it does need to be stronger. How we've decided to strengthen it is kind of like it's at that supplement level, which is just, well, then squeeze it, squeeze it, squeeze it, squeeze it. It's like giving it something to do. Let's work it out. And that's fine except that what naturally elicits what you're doing when you're Kegeling, that pubic oxy gel contraction is simply moving around more. And so we could tell people to move around more. And I don't only mean in terms of frequency but also having better joint range of motions so that you're using more of your parts when you do move.

You use all of your parts. If I say...and so it's not only squatting, I'll also kind of pair squatting with, like, walking. To me, squatting and walking, and all of the corrective exercises that give you better joint ranges of motion when you squat and walk not only strengthen your pelvic floor, they strengthen the lateral hips. They strengthen the glutes. They strengthen the hamstring. They strengthen the core musculature. That's my approach. When I see someone who comes in, it's like, "Oh, well, did you know that your movement is very low, not only in terms of how many minutes you're moving, but how much of your body is moving, right?" So

you get very stiff when you don't move. When you do go to move, like, say, you're still walking three or four miles a day as your workout or running, you're not moving through the full range of motion of your joints, so very little of you is actually adapting to that about of movement.

Kegels is like doing the absolute minimum and only giving your pelvic floor something to do while you still continue to be whole body sedentary. It's like, well, just work out one single muscle. It's like saying that you want a stronger, more robust shoulder and only doing bicep curls. Will your shoulder get stronger if you do bicep curls? Certainly to an extent, but the whole system won't be improved. It will only be improved in that one way that your shoulder works to help you do a bicep curl. And then when you do a ton of bicep curls, if that's your only action of that body part over time, your arm starts to kind of take on the shape of a bicep curl. It's start to, you know, as you start to get a little tense in through the elbow, maybe your shoulder pulls forward, because when you work one muscle in isolation, it tends to pull the skeleton in a particular way. And that's really my biggest issue with Kegels because I would work with...you know, we think of pelvic floor issues as like a new mom issue or a mom whose had multiple children issues. But for me, my perspective on pelvic floor issues are informed by the number of fitness professionals who have extremely tense musculature and very, what they would be considered extremely fit, who had no children.

So when you see the full spectrum of the issue, then you can go, "Oh, okay, I can see that that repetitive tension of the pelvic floor kind of done in isolation can shape the pelvis in a way that perpetuates it." So the Kegel's a great supplement, but you can OD on a supplement and make yourself kind of just as ill than if you didn't have it. I'm less about, like, no Kegels, which I think is how I'm often portrayed if you haven't read very much of what I've written besides like a couple articles and more for a more holistic whole body, whole life approach to physical solutions, in this case, for the pelvic floor. But that's really my approach to everything, like musculoskeletal, everything physical is that, "Let's consider the context so that we don't get caught up in taking, like, one small supplement for the rest of our lives and then having to do some other supplement to balance out this one supplement kind of done in excess." That just more of...that's why a natural...I like natural movement because it's kinda similar to stepping back and considering not the supplements or trying to balance a supplement you're taking, but considering the foods that you're choosing to eat and the diet. And then, you know, it gets more and more clearer context from there and what is making us choose a particular movement diet, and can we play with those things a little bit? I prefer a broader perspective is all.

Katie: I love that because I'm the same way when it comes to food and a real food diet and how like, "Yeah. There's a time and a place for supplements but not until you have the real food diet in place." And also, like you said, if you take too much of one thing, you take too much vitamin A, it interferes with vitamin D or calcium and magnesium and how all of these have to work together in the right amount. So I love that you bring that perspective to movement where I think it's incredibly important. Another thing that you've written quite a bit about, and I know I have a lot of questions from listeners is about diastasis and especially after pregnancy. And obviously, I would guess that all the movement helps with that as well, but is that related to the pelvic floor movement? Are there other things women would wanna specifically be focusing on if they know they have that problem?

Katy: Well, it's interesting because diastasis recti and pelvic floor issues, if you're interested in both of them, this pertains to both, they are pressure-related ailments. They are ailments that are...they're not only, like, weaknesses. Like, it's easy for us to boil everything down or chalk everything up to this one part wasn't strong, if your pelvic floor isn't strong enough in the case of pelvic floor issues and your rectus abdominis or your core muscles aren't strong enough in the case of diastasis recti. Where it's more that the way that you are moving,

they're creating, or the way that you're tensing your muscles, which I would put all under the umbrella of movement, you're creating high pressures, and these high pressures are straining different tissues. And so one of the things that really affects intra-abdominal and pelvic pressures have to do with the tension of your upper body.

And so I think it's strange for people at first, if they would come to me or to any of our teachers or read some of our books, to be like, "You know, in diastasis recti, a lot of it starts with shoulder mobility work." It's kind of a disconnect, where it's like, "Why am I doing shoulders for my pelvic issue?" It's like because the tension that is in your shoulders and your neck and your arms is causing your upper body to curl forward, but you don't walk around with your upper body curled forward. You kind of like lift your chest, which pushes your rib cage out or you'll push your pelvis forward. And those things start pulling on the tissues of your abdomen in a kind of highly frequent, unnaturally frequent way. And when done in the context of hardly moving at all, all the other parts of your body, there's, over this time, these deformations. And, you know, we think of our pelvic organs as something that the pelvic floor is solely supporting. It's like, but those are on...they're connected on ligaments. They're being supported by other organs and ligaments. It's not solely the pelvic floor.

So what happens when you are constantly bearing down on those pelvic organs and then they're pulling on their ligaments and then slowly, those get deformed over time, which allows them to go lower. And so it's just, with diastasis recti, it's this idea that this isn't a weakness issue. This is a movement issue, and it's not that one body part isn't strong enough. It's that you hardly move, hardly any of your body, and these are the symptoms of movement malnutrition rather than the weakness of one particular part. I think that's my overall message, is that what we consider a musculoskeletal ailment or some sort of physical thing, there are certainly many other factors. You have to consider movement and other in parts of the environment. But a main player in your environment is the types and frequencies of movement that you're getting.

And so many things are related back to this movement malnutrition and so instead of again single-supplementing and then having to supplement, like if you need to do exercises to correct something but you have to do them indefinitely, then you didn't really change enough about the scenario that was leading it that way. So I would say, "I'd rather you focus your time on changing these aspects of lifestyle or movement practice so that you don't have to do movement supplements for the rest of your life but you kind of integrated the movement back into your life so you're not thinking about or worrying about this one part of your body. You're gonna be using your body in a way for your life that just has that, in that effect, of you no longer have a diastasis recti."

Katie: That makes total sense. And I know a lot of people may be wondering how to practically integrate these, kind of, things into your daily life. And from what I've read on your blog, you guys have a really interesting way that you do this on a daily basis. You have very limited furniture compared to most people. And this is very intentional for you. So, can we talk about your house, and what it looks like, and why you made those choices?

Katy: Well, it's just like, you know, people are trying to eat better. If they say, "You know, Katy, I wanna start a whole food diet," often time...you know, "I wanna eat better. I have this health issue or this physical scenario that I'm trying to move away from, and I recognize that it relates to what I'm eating." One of the practical tips for eating better is to remove all the food that keeps pushing you towards that physical issue in the first place, right? So you could bring healthy stuff in, but if you leave, like, the junk food in the house, there's a very strong chance that the environment that you're creating is going to be affecting how well you can transition to eating in a different way.



So for me, once I recognize like, "Oh, I wanna take rest oftentimes throughout the day." There's nothing wrong with taking rest or sitting, but I am so conditioned to, like my human nature is conditioned to the path of least resistance, like the most energy consuming habit, that I will always plop in a chair versus sitting on the floor in front of it. Once I recognize that, oh, like I...that my chairs in the house are kind of like the equivalent to junk food, they're fast, they're easy, but they're not as nutritious as if I just carried my weight and did the squat all the way down to the floor and then sat with my legs in a particular way that is basically like a separate stretch exercise, but it's not, it's just how I have to sit on the floor, then I realize I could use my environment to facilitate a better outcome without thinking about it.

So that was...it was just me...our main approach to health these days seems to be trying to bring new behaviors into the existing environment, which requires a tremendous amount of will power, which is, in itself, not really a natural human thing that we have to deal with, right? Like, we never had abundance and the ability to choose between so many behaviors. There was just the minimal things that you had and you were, like, lucky to have them. You didn't have to choose between a food that was better or worse from you. It was like, "Well, this is the only food that's around," so you're gonna eat it with gratitude.

So I just recognized that instead of constantly choosing to prioritize or to add into my life hip stretches and knee stretches and, you know, 20 squats a day and then plop down on the couch afterwards, that I could just remove my couch and then I would get naturally throughout my day, not having to schedule separate exercise time. All of the corrective exercises that I was doing, and I didn't have to think about it anymore, I didn't have to schedule it separately in my life. So that's why we got rid of the furniture, was really to facilitate the behavior that we were after.

Katie: I got it. And I bet...because you have two children, right?

Katy: Yeah.

Katie: I bet that was easier adjustment for them or maybe it was before they were born. But I'm assuming they probably loved that. Or, my kids do like, there are times a week, like, have a picnic on the floor, like just sit on the floor. They love it.

Katy: Yeah, I've got two kids and the bulk of this was all done before they were born, although we're constantly tweaking our environment in different ways that facilitates more movement. Because they haven't lost their ability for floor-sitting with ease, like they haven't adapted to chairs, so therefore squatting and sitting on the floor, they maintained all of their mobility to do so. So it's not only like I'll have parents, they'll like, "My kids don't wanna do that. They like the couch." Well, like, sure, they're adapted to it. Sitting on the floor, for many people, is uncomfortable. They're not used to the joint ranges of motion or the strengths used to come up and down or the pressure or that...like it's the actual deformation of your flesh when you sit on something firm versus something that's full of, you know, cotton. Like, when you sit on a couch, the couch deforms. Your body doesn't move in a deformed way. If you're on the ground, the tissue has to do that deformation, which is also part of movement.

And so they like it because they use more of their body for it. But I don't even know if they particularly know the difference because they didn't transition. They do feel, I think, more when we're in places, and we certainly travel a lot, and we're in...you know, most places aren't chair-free or furniture-free. So I think they

feel more that their movement is encroached once they've had the ability to move free. And then, you know, we have a small house so we have lots of space in our house without those sitting objects. So they can certainly feel the decrease in movement ability, kind of similar to if anyone has, like, started wearing minimal footwear compared to traditional footwear, or, like, at the end of the summer when you're used to putting on a sandal and how free your feet feel, you know, to move around and be in the air, and then all of a sudden, you go into like a sock and a winter shoe and you can feel the size of it, like you can feel that pressure on your body, like a tight shoe, only because you've experienced the sandal. So because my kids have kind of the barefoot equivalent to home-living when we go into other places, I think they can feel. I can certainly feel like my body is being pushed or held together by how much stuff is in a house preventing you from moving fully through it.

Katie: Yeah. That makes so much sense, and I love, I saw something recent about how they had figured out this correlation, like if you can stand up from sitting position without using your hands or grabbing onto something or holding your knees, they're like it was actually correlated with longer life. And I was laughing because I'm like, "Katy's been saying this for years, and it's all about the movement, but it makes so much sense." And as far as like kids and integrating daily movement, I got so many questions about this, people asking, what about schools? Do your kids go to school or homeschool, and how do you recommend that parents can incorporate this when kids have to be sitting because it's so hard for them to have to sit still all day? Are there any things that parents can do to help incorporate movement even when their kids are in school?

Katy: Yeah. And it's the same advice for an office. Like, I feel like in a 9 to 5 reality, which I would put that on both work and also education, that's a reality for a lot of people, and so to approach it in exactly the same ways. Like, step one, you look at your time before and after that kind of least mobile period. Like, the most rigid part of your day is the part that you have to clock in and clock out. Like, you can't just come into school an hour late because you felt like it. Like, you're expected to clock in. So it's not very malleable on a practical level. So, what is your family doing for movement in the morning? And if you're like, "There's no way I can get more movement. It's so hectic." It's like, "Okay. Well, then why is it so hectic?" And, like, let's look at to see if we can make it less hectic with more movement.

So a lot of things that we do are sunrise breakfast, you know, packing up breakfast, and we do this for dinner, too. We often, I think, limit our exercise or hike to being like not during dinner time or meal time. But for me, I will oftentimes whip up something for dinner before I go to bed. You know, like, maybe I'll make a frittata or some things that's already cooked in the morning. I just slice it and I put it in a box, and we go for an hour walk or bike ride. Then that just replaces breakfast time. And I find that, like, my kids are always like up and excited to get out and that they're often kind of squelched that I have...like, "I gotta pack lunch or I gotta do all these things." So once I kind of shifted where I was doing my work, I found that there was this time in the morning where...you know, you have to go to bed earlier to be able to get up earlier, so switching maybe your sleeping practices a little bit. It gave us like an hour of movement before our day even started, and we just eat breakfast on the go, so little things like that. Dinner hikes are a big thing for us.

You know, oftentimes, work days are long and, like, you're just kinda stumbling out at 5:00. You're like, "I can't believe I was inside in front my computer all day long." And then in your mind, you're like, "Well, now it's dinnertime," and then it's been a bath time, and then it's bedtime. We have that very rigid thinking. It's like we're immobile in our bodies and we're kind of immobile and inflexible in our schedule. Like, we really perceive there's certain foods that you can eat at breakfast time and certain foods you can eat a dinner time in

a certain way that the dinner hour has to happen because we're so locked to that. It makes changing the way we behave a little bit different.

So once you realize you can eat whatever you want, whenever you want, that makes a little bit more flexible. And it's okay to take dinner hikes. Like, we'll often, again, pack up food and then just set out for three miles and walk all the way through right up until bedtime, and that becomes the favorite part of the day. And it just all of us are there. And people feel, sometimes feel tired, maybe feel like, "Oh, the kids are so tired." You get revived really from movement. You know, you don't have to go fast. You just go out there kind of slowly hiking along and everyone's meeting their nutritional needs, both movement and diet-wise.

So looking at that non-school time is probably the easiest way because you have very little...I mean, you have plenty of input about how school happens. You can certainly be very vocal and asking about a transition to, you know, bringing back playtimes, and can teachers add more movement? I mean, these, eventually, are going to be the steps, I think, that parents are gonna have to take, is to say, "We need to put the movement back into the school in the same way parents can, you know, effect, oftentimes, what food is being served..." But, you know, that's very uphill working. You wanna, before you start on the uphill, you wanna make sure that you're maximizing the movement all around the times where you have much greater influence with ease.

Katie: That's great advice. And I think what you're saying as far as adults, you don't have to sit in your chair the same way and you can move that way. I feel like kids do that naturally. Like, I don't know any kids who just sit perfectly still the whole day. They're, like, sitting on one foot. They're sitting in the front of their chair, the back of their chair, like across, like they move so much more even just in a chair than we do.

Katy: They're fidgeting, and to maybe not frame fidgeting or the inability to sit still as a bad thing. I mean, it certainly, I think, makes it challenging for the teacher who needs everyone to be still but that there's nothing wrong with that child, you know, to keep that in your mind as a parent. And you know, and you can say, "I know that when you're in school that you're fidgety. I just wanna let you know that I know that this is something natural that your body is needing to do to balance the movement. And it's okay with me that you're doing it, just not squelch." I think a lot of our movement faculties have been squelched by others inputting that our movement is wrong for us to do, not being able to separate, as an adult, what's necessary for a particular institution to survive being something separate than what one component in that institution, which would be the child, what that needs to survive, so just to keep those separate in your mind.

And it can even be, if you're a teacher, to say, "I need everyone to be still so that everyone can hear me. You know, like, I appreciate the movement. I love that you're moving your bodies. That's great. Could everyone freeze for just a second so I can say this and not have to talk about the noise that your body is making, you know, that we can keep making a distinction between manners and biology," or something that the school needs to be able to run on that even you can still ask for what you need as an administrator but to not tie it to being good or bad or right or wrong because I've had a lot of adults talk about what you just talked about, saying, "You're telling me now that I should be fidgeting in my chair, and I used to do that and every adult told me that I was bad." And so now, they're almost...whether they know it or not, that messaging that for them to move is bad and rude and wrong, like they're having a challenge overcoming it.

Katie: Yeah. I think that's a great point. And another thing that I saw a lot of people say when I asked people, like, "What should I ask you in this interview," a lot of people said things like, "Well, my kids already get plenty of movement because they're in sports, but I need to work on it." And I know you have an interesting

perspective on organized sports and actually, I 100% agree with you, but can you talk about, like, why sports, just in and of themselves, don't necessarily meet all the movement criteria that a person needs?

Katy: Well, and plenty of movement is, you know, like what does that mean? Plenty of movement usually means that people are getting like what we perceive we need, which is like that one hour of exercise or, you know, 90 minutes, which is a very low total amount of movement. Like, if you move an hour a day, that's 4% of the day. So you're still sedentary. Like, even exercisers who exercise every day are still, by definition, academic definition in exercise science, sedentary. So we need to adjust our mindset about when someone has plenty of movement or not or like that this message doesn't pertain to them because it really, it pertains to anyone living within a sedentary culture or a movement outsourcing culture, which is us.

That all being said, sports can be a great way to get some movement and learn some skills and do some teamwork and learn about winning and losing and commitment to something. There's a lot of skills that come from it. However, sports, when we do sports, we tend to be doing one single sport, like you're doing gymnastics or you're doing baseball or you're doing soccer or you're playing football. Sports are the equivalent to eating one particular food over and over and over again. So while that food could be deemed a nutritious food in that within it are many nutrients, no single food makes up a healthy diet. If you were just like, "What's the healthiest food?" Like, a kale, we always pick kale as like the...right now, it's like the ultimate healthy food, or you can even think of, like, bone broth, like a cup of bone broth to be very nutrient-dense. But you cannot subsist on it alone, meaning that you are going to...you could be malnourished. You will be malnourished if you only consume a single food over and over and over again for a long period of time because you don't need adequate food. You need your full nutrient profile made.

And so sports, again, they are usually about of movement happening in an otherwise sedentary context. That goes for exercisers, too. This whole thing goes for exercisers. Sports is the same thing. To the mode, which is, again, it's that academic or clinical term for whatever it is that you're consuming over and over again. Your mode of movement or exercise or sports, when it's the same, it's just repetitious over and over again. And when you physically adapt to the same thing, what happen is some of your tissues get very, very dense and strong and all of the others that aren't used for those particular movements get relatively weaker, and then that's the interface between the weak and the strong is where there's injuries.

So, I mean, as far as childrens sports and injury, like there's a huge rise in them because kids didn't really used to play organized sports in the way that they do now. And I think that organized sport is kind of...it's been ramped up, so to speak, in this kind of society that doesn't move very much. We're like, "Our kids need to move. Okay, I'm gonna put him in this class, right, and they're gonna do this sport that's gonna be intense." So you take sedentary kids, you put them into something that's repetitive and intense, and they start doing it younger and younger. I mean, we played...I'm 42. We played all day after school. We didn't play any particular sport. When we did sports, we still rode our bikes to the sport and rode home, and we still played and played and played before and after we had very long recesses. So weren't as sedentary, and we weren't as specialized, meaning, there was great variance to the types of movements that we did.

And so now, you've got...there seems to be this transition of thinking. Most professional athletes and really, really good athletes did not specialize as children. They played three or four sports all seasons and then they just happen to, by the time they were, like, 18 or 19, be really good at one of them, but it was done in a context of lots of other strengths and movements and then they went on from there. Now, we've got this idea that, well, if they like this, and we start them early, they're gonna be really good by the time that they're, you

know, ready to go off and to play college sports or play professional sports, but the opposite effect is actually happening. What's happening is they don't have a very diverse base of movement strengths, and they tend to get injured very early or are so burnt out on doing it for the repetition that they don't really go forward. So that's kind of new in a sport science of going, "Oh, early specialization really makes you weaker, not stronger."

So I think sports are great. My kids play soccer, just in case anyone's wondering. Although we have sawed off the back of their soccer cleats, so they're not wearing heeled soccer shoes, which most of them are, but they play soccer, but they will have, you know, walked three or four miles every day that they play soccer. Like, I wouldn't cross off the box of movement just because they played a sport, just because they practiced for a couple of hours and played a game on Saturday. I would still consider them sedentary because their total daily movement was so low.

Katie: Yeah, such an important point, and at least from the few professional athletes that I've talked to in my lifetime, I think you're a 100% right. They didn't start off playing it for their one sport. They played a lot of sports. They just loved being active. And also, the thing that like that entire generation, they were playing outside. They were climbing trees. They were building sport. They were swimming. They were doing all these, like, really dynamic movements. And I know you've written about, like, the importance of climbing and hanging and all these things that kids aren't doing very much anymore. So I think that's a great point, like sports have a place, but they're not the only thing. And I've got a few other kind of rapid fire of questions from people that, like, they really wanted answers from you. You don't have to answer quickly, but I wanna make sure I get them in. So one is, are there any additional or different movement requirements in pregnancy or after pregnancy?

Katy: I don't really think so. No. Like, you know, a lot of what I do is based on, like, an evolutionary biology, modern hunter-gatherer approach. So there's not radical transitions in, like, the needs, like the movement needs. In fact, I would say that someone who is pregnant would benefit, like, relatively more from moving around than someone not pregnant for many reasons. Like, we could do a whole entire show on just the pregnant body and its movement needs. But, no, I wouldn't say that...I think we're so used to framing. As I'm saying this, I go, I probably said 180 degrees for most people, which is like here are the concerns that you need when you're...to think about when you're moving when you're pregnant.

But those are usually coming from like sedentary/exercising mindset, where for me, it's more the understanding that your whole body needs to be moving a whole lot through your whole life, that pregnancy is probably the best time, or even before you're pregnant, like, to start that mindset so that you can most fluidly utilize that mass coming on to become very strong for the sport that you're about to, you know, that you're training for a sport essentially, if you wanna think about giving birth as a maybe your most athletic endeavor ever, which for many people it is, that you have this long training period for it and that that's really a great time to start transitioning into what I would call a more movement-rich life versus start this exercise program now that you would be transitioning your body to be and your life to have a lot more movement in it for a really great outcome, you know, as you're...not only having a baby but, like, you're going into parenthood. You now have an 8-pound accessory, 6 to 10-pound accessory that you are going to be having on you. And a lot of women will write me, it's like, "When I hold my baby, it's like I get pubic symphysis. I can't hold it for a very long time. When I wear my baby, my diastasis gets worse," you know, and like they're trying to balance all these things.

So it's a good time to kind of start thinking about moving more, and also, it's maybe the easiest time because I

feel like...I'm just even speaking from experience. Once I knew I was pregnant, it seemed like health behaviors seemed that more important to me because it wasn't me really that I was thinking of that are benefiting from. It was this child. And so I think your motivation is higher, your adherence is higher, your interest, it's like very intrinsic, and so it's a really great time to start transitioning to this mindset. And then when your child comes out, now, your child can immediately, day one, start benefitting from your more movement-rich life because you're never only moving just yourself when you are with child, you're moving them as well, and so that ends off paying off many times over as you go forward.

Katie: Yeah. I think that's an awesome point. Another question that I've gotten a lot from people is about minimalist shoes. It's a more popular thing now. People are raising awareness about the importance of not having a high heel on your shoe but even just having a minimal drop on your heel in general. And a lot of people said like, "What specific shoes does she recommend? How do you know if you have found good shoes and especially for kids, babies, and toddlers, what do you do?"

Katy: Well, I maintained shoe lists on my website. So you can always go there and look at winter shoes, summer shoes, and then just a general shoes list. There's also a kids list now. And then on the kids list, so, like, there's so many brands. You can just look and see. Rather than having a specific brand, there are general features, and the shopping features are also on those blog posts so that you can just print them off and be like, "Okay. Here's what I'm looking for." So you're looking for a minimal heel, all right, as low as you can find it. And often, like in some of my books, I will show, "And here's how we remove the heels with Skilsaw at our house," when you can't find exactly what you need. So there's minimal heel. There is the ability for the toes to spread in the front of the shoe. So that front of the shoe is called a toe box, so a wide toe box, something that doesn't press your toes together or prevent them from moving. There's also the lift at the front of the shoe, a lot of shoes kind of like, like a court jester shoe only less pronounced, they bend upward. There's a picture of it on the website if you're not sure what that toe lift looks like.

Flexible sole, so if you go grab your kids shoes and you bend them in half and then twist them along their long axis, are they very malleable? If not, you're not going to be moving your foot very much. So I don't know if many people know, but 25% of the number of muscles and bones in the body are from the ankle down. There's 33 joints in each foot. When you put something on it that doesn't bend or move, that means that you've immobilized, I used the word "cast" in a lot of my books, you've casted those joints and all of the muscles between those joints. So your footwear is, in fact, limiting lots of motion of your body, not only the heel. The heel is the part of a shoe that kind of casts many parts outside of the foot. It's casting your calves, your knees, your hips, your pelvis, your low back, your neck. If you could only, like, do one feature of a shoe, I think I'd recommend dropping the heel off if you're feeling overwhelmed by the list of five. So that was flexible sole.

And upper, upper is the last one, and upper is the part of the shoe that connects the shoe to your foot. So a flip-flop has a very small upper, right? So it's not only small, it doesn't connect your full foot to the shoe. Every time you take a step, your foot is moving away from the sole of the shoe. So it does not have what's called a full upper. But you could get a sandal or you could just put a back strap on your flip-flop, adding barely any mass to the shoe, and the shoe would then come up with your foot. So when the shoe doesn't fully attach to your foot, whether it's a flip-flop or like a slide-on clog or mule, you end up gripping your toes to hold it on. And so if you're wearing something like that right now, go take a few steps and notice how your toes shorten and grip. You actually change your whole stride and everything when you wear shoes that will kick off your foot if you don't do these other things. So I recommend a full upper, especially for children. When I see kids in

flip-flops, I just wanna go get like a little back strap and put it around the back of their shoe because it's affecting their stride. Their stride, just like you adapt to a chair, when you sit too much, you'll adapt to your stride and then all the muscles that are affected by your stride by choosing footwear that kind of artificially alters everything just to keep this shoe on. So that's your basic shopping guide. And again, you can find a list in a nice grid on those shoe lists.

Katie: Awesome. I'll make sure we link to that in the show notes or I'm sure they can through it. Another question related to that, somewhat parents asking, "What about children who have flat feet or even adults who have flat feet, is there anything that can help with that. I would guess they'd be more uncomfortable at least in the beginning in a flatter shoe." Do you do have an answer for that?

Katy: Yeah. I mean, you have what I called flat feet. But flat feet, so this is in a book called "Whole Body Barefoot." You can learn what a flat foot is. It is simply a hip that is internally rotated and an ankle that dropped all the way in, so it's excessive pronation. So it's more a weakness of the foot, like the shape of your foot, whether it's a high arch or low arch, is made up of the muscles and the strengths in your body. So if you have a flat foot, my first recommendation is not about shoes. It's to start training the muscles of the hips and the feet to bring your arch back, that you can bring your arch back. Many people have, and it's just about learning, "Well, the shape of my foot or my arch is controlled up in my hip," right? And so again, there's a... I think there's a couple YouTube videos where I'm demonstrating what I'm talking about, so you can actually see a foot go from flat to a high arch simply by a rotation up in the hip joint. So there are exercises to do to start correcting that. And then a lot of them also go back though to how much are you sitting? What shoes are you wearing? So I don't think I would alter my shoe recommendation for flat feet. I would recommend more movement and more movement in various parts of the foot and hip.

Katie: Very cool. And another question that came up a whole lot was, "Are there any movement-based remedies for plantar fasciitis, and what should someone who's dealing with that start focusing on?"

Katy: Same, same thing, right? So a lot of us have very weak hips, very weak glutes, very tight calves. We sit 8 to 10 hours a day. We've always worn shoes that are stiff and heel. So you've got...these are all, plantar fasciitis, flat feet, these are all symptoms of your movement diet, like you have a poor movement nutrition in these parts of the body, and here are the symptoms. So it's really the same thing, like a balanced, a balanced diet changes. There's not one perfect diet for everyone, but there are these main categories, macronutrients and micronutrients, and so there's simple steps to foot pain, which is another book, which I would recommend to start going, "Oh, where your pelvis is over your feet, that can instantly change a load in your plantar fasciitis, where your thighs are rotated relative to your pelvis and your foot, that's gonna change the load. And can you lift all of your toes individually? Can you just lift only your big toe?" That's your first exercise for anyone lifting, is take off your shoes. Can you spread your toes so that none of them touch each other? While you're there, can you lift just the big toe and then can you lift the second toe and then the third toe and the fourth toe and the fifth toe and put them back down in order? Now, you're starting to train the muscles in the feet instead of just kind of slamming down on your plantar fascia, which shouldn't be bearing the brunt of your weight. It should be these very strong and supple muscles in your feet. But you have to start working towards them.

Katie: Awesome. And I know you have post on these. I'll make sure to include links to the ones that we've talked about in the show notes. But pretty much just listening who's not in the show notes, where can people find you online and how can they find out more about the things we talked about?

Katy: nutritiousmovement.com is my main website, and then from there, you can find...social media is really good if you're like Instagram, I post a ton of examples of how we get more movement in our life and exercises on that social media. I'm most active there. I've got categories of information on the bottom of my website. So if you're listening you're like...because my website, I mean, I wrote a blog for almost 10 years. So there are, I mean, there are hundreds of articles. You can sit and read through the entire thing if you want to or if you wanna just not be overwhelmed. If you go to the bottom, there's pregnancy and babies. There's feet, there's lifestyle, there's, you know, minimal home, and so you can click on these categories, and then I have selected for you like here are the top three podcasts of mine that I think will be helpful, here's the top three YouTube videos that I think will be helpful, and here's 10 blog posts that I think will get you enough up to speed really like, "Okay. Now, I feel like I have a sense of where I'm going."

Katie: Wonderful, and all those, of course, will be in the show notes as well. You have such amazing information. I definitely encourage everyone listening to go check it out and to use your programs. They're wonderful. I've used it in pregnancy, especially in...thank you so much for taking the time to be here and for sharing your wisdom.

Katy: Thank you, Katie. I appreciate it.

Katie: And thanks to all of you for listening, and I'll see you next time on the Healthy Moms podcast.

If you're enjoying these interviews, would you please take two minutes to leave a rating or review on iTunes for me? Doing this helps more people to find the podcast, which means even more moms and families could benefit from the information. I really appreciate your time, and thanks as always for listening.